AFNOR NF M 87-202 OS Lead Covered Armoured Fire retardant

- Instrumentation cables 250 V
- Overall Screen (OS)
- **Hydrocarbons resistant and enhanced resistance to aromatics**

STANDARDS

Test IEC 60332-3-22 Cat.A

APPLICATIONS

These instrumentation and communication cables are used to **transmit analogue or digital signals in measurement and process control**. They are well adapted to **underground use in industrial applications, in moist areas, where chemical and mechanical protections are needed. The lead cover brings an enhanced resistance to aromatics hydrocarbons**.

Nexans code

- 1st serie = number of pairs, triples or quads: 01 to 27
- 2nd serie = pair (IP), triple (IT), quad (IQ)
- 3rd serie = conductor 05 (1 x 0.8 mm), 09 (7 x 0.4 mm) or 15 (7 x 0.52 mm)
- 4th serie = overall screen (EG), individual screen + overall screen (EI)
- 5th serie = mechanical protection: without metal tape (SF), with steel tape (FA), with lead and steel tape (PF)

Design

Conductor:
- Solid plain copper 0.50 mm² (1 x 0.80 mm) or stranded plain copper cross-section 0.88 mm² (7 x 0.40 mm)

Insulation:
- Polyvinyl chloride (PVC)

Collective screen:
- Polyester tape
- Tinned copper drain wire
- Aluminium/polyester tape

Inner sheath:
- Polyvinyl chloride (PVC)

Lead covering

Armour:
- Paraffin-waxed crepe paper
- Double steel tape

Outer sheath:
- Polyvinyl chloride (PVC)
- Colour: light-blue or grey

Core identification

Pair: natural - red
Triple: natural - red - blue
Quad: natural - red - blue - yellow
Natural cores printed with pair/triple number

Marking

NEXANS 279 - Number of pair/triple/quad IP/IT/IQ 05/09 EG PF IEC 60332-3-22(A) + metric marking

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Hydrocarbons resistant

Electromagnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
70 °C

CONTACT

Market information
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AFNOR NF M 87-202 OS Lead Covered Armoured Fire retardant

CHARACTERISTICS

Construction characteristics	
Conductor material	Plain copper
Insulation	PVC
Overall screen	Tinned copper drain wire + aluminium/polyester tape
Inner sheath	PVC
Lead Sheath	Yes
Armour type	Steel tapes
Outer sheath	PVC
Dimensional characteristics	
Number of quads	1
Electrical characteristics	
Operating voltage	250 V
Usage characteristics	
Fire retardant	EN IEC 60332-3-22 (cat A)
Chemical resistance	Hydrocarbons resistant
Electro magnetic interference resistance	Yes
Operating temperature, range	-20 ... 60 °C
Max. conductor temperature in service	70 °C
Standard	NFM

SECTION 0.5MM

Reference	Name	Diam. over inner sheath [mm]	Lead cover diameter [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	03 IP 05 EG PF	8.5	10.5	14.0	15.5	566
	07 IP 05 EG PF	11.1	13.3	16.9	18.6	787
	07 IT 05 EG PF	12.7	14.9	18.5	20.4	959
	12 IP 05 EG PF	14.2	16.6	20.4	22.5	1115
	12 IT 05 EG PF	16.2	18.6	22.3	24.6	1353
	19 IP 05 EG PF	17.4	19.8	23.5	25.9	1414
	27 IP 05 EG PF	20.5	23.1	26.9	29.6	1830

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Hydrocarbons resistant

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
70 °C

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SECTION 0.88MM

Reference	Name	Diam. over inner sheath [mm]	Lead cover diameter [mm]	Min. outer diam. [mm]	Max. outer diam. [mm]	Approx. weight [kg/km]
	01 IP 09 EG PF	6.6	8.6	11.8	13.2	485
	01 IT 09 EG PF	6.9	8.9	12.2	13.6	518
	01 IQ 09 EG PF	7.5	9.5	13.0	14.4	573
	03 IP 09 EG PF	10.9	13.1	16.8	18.5	759
	07 IP 09 EG PF	14.6	17	20.8	22.9	1136
	07 IT 09 EG PF	17	19.4	23.1	25.5	1396
	12 IP 09 EG PF	18.8	21.4	25.2	27.8	1605
	12 IT 09 EG PF	21.5	24.3	28.2	31.1	2071
	19 IP 09 EG PF	23.3	26.1	30.0	33.1	2185
	27 IP 09 EG PF	27.4	30.4	34.3	37.9	2798

ELECTRICAL DATA NF M 87202

Electrical data

Section	Maximum Voltage (V)	Voltage Test (V)	DC Lineic resistance at 20°C (Ω/km)	Self Inductance mH/km		Capacitance between cond. (nF/km)
				Non Armoured	Armoured	
05	250	2 000	37.5	0.33	0.38	≤145
09	250	2 000	21.4	0.31	0.36	≤160
15	250	2 000	12.1	0.31	0.36	≤180

SELLING AND DELIVERY INFORMATION

Minimum bending radius:

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Hydrocarbons resistant

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
70 °C

10 x outer diameter
To be doubled during laying operations

Fire retardant
EN IEC 60332-3-22 (cat A)

Chemical resistance
Hydrocarbons resistant

Electro magnetic interference resistance
Yes

Operating temp.
-20 ... 60 °C

Max.conductor temp.in service
70 °C